

REMARKS

I. The Pending Claims and the Amendments To the Claims

With the entry of the amendments above, the pending claims are Claims 1-8, 10-14, and 16-22, with Claims 1, 6, 16, and 19 being the pending independent claims, and Claims 2-5, 7, 8, 10-14, 17, 18, and 20-22 being the pending dependent claims.

Dependent Claim 9 is canceled because it was identical to Claim 8. Dependent Claim 15 is canceled because it is identical to Claim 10.

Independent Claims 1, 6, 16, and 19 are amended by the addition of the overall thickness of the multilayer film of from about 10 to 100 microns. Support for this amendment is present in the specification at Page 13 lines 9-11, which discloses the multilayer film as having an overall thickness of from about 10 μ m to about 100 μ m. [1 μ m = 1 micron.] Each of independent Claims 1, 6, 16, and 19 are also amended by the addition of the requirement that the modified styrene-based polymer have polar groups thereon. Support for this amendment can be found in the specification at Page 7 lines 13-17.

Claim 5 is amended by changing “modified styrene-based polymer are maleic anhydride modified...” to - - - modified styrene-based polymer comprises maleic anhydride modified - - -. Support for this amendment can be found in the specification at, for example, Page 7 lines 6-17.

New Claims 21 and 22 depend from Claim 1 and recite thickness ranges for the multilayer film of 15-80 microns and 20 to 60 microns. Support for new Claims 21 and 22 can be found at Page 13 lines 12-14 of the specification.

The amendments include no new matter.

II. The Rejection of Claims 1-5 as Anticipated by WIRTH

In Section 5 of the 26 April 2005 Office Action, Claims 1-5 are rejected under 35 USC 103(a) as unpatentable over U.S. Patent No. 5,171,640, to Wirth ("WIRTH"). The office action states that WIRTH teaches multilayer materials containing EVOH and styrene-based polymers in a b/a/c structure, and that the materials exemplified include ones in which the (b) layer is 69% to 79% of the total material thickness. The office action admits that WIRTH fails to teach the weight ratios of (b) to (a) polymers, but concludes that it would have been obvious to employ suitable amounts of polymers in the materials of WIRTH in order to achieve optimal barrier properties.

In response, Applicants contend that Claims 1-5, as amended above, are patentable over WIRTH. Claim 1 has been amended to recite the multilayer film as having a total thickness of from about 10 microns to about 100 microns.

The multilayer material disclosed in WIRTH is significantly thicker than the multilayer film recited in Applicants' claims. WIRTH discloses a multilayer material having at least 3 layers, i.e., a first layer (a), a second layer (b), and a third layer (c). The (a) layer comprises EVOH and has a thickness of from about 20 microns to about 1.5 millimeters. 1.5 Millimeters equals 1500 microns. Thus, WIRTH teaches that the (a) layer has a thickness of from 20 to 1500 microns. Likewise, WIRTH discloses the (b) layer as comprising styrene/maleic-anhydride copolymer, the (b) layer having a thickness of from 100 microns to 1.5 millimeters. Thus, WIRTH teaches that the (b) layer has a thickness of from 100 microns to 1500 microns. Finally, WIRTH teaches that the (c) layer has a thickness of from 20 microns to 1.5 millimeters (i.e., from 20 microns to 1500 microns). Summing the three layers together, WIRTH teaches

that the multilayer material has a thickness of from 140 microns to 4500 microns. Moreover, the various examples in WIRTH disclose multilayer structures in which the total thickness of the (a) + (b) + (c) layers is from 900 microns to 1300 microns. All of the examples in WIRTH are about an order of magnitude thicker than the maximum thickness recited in Applicants' claims.

In contrast to WIRTH, Applicants' independent Claim 1 recites a thickness of from 10 to 100 microns. WIRTH does not teach or suggest a multilayer material having a total thickness within the range of 10 to 100 microns. As such, it is clear that WIRTH does not anticipate Applicants' independent Claim 1, as amended above. Accordingly, WIRTH also does not anticipate any one or more of Applicants' dependent Claims 2-5.

III. The Rejection of Claims 5-20 as Obvious over WIRTH in view of GUSAVAGE et al

In Section 6 of the 26 April 2005 Office Action, Claims 5-20 are rejected under 35 USC 103(a) as unpatentable over WIRTH in view of EP 0 707 955 A1, to Gusavage et al ("GUSAVAGE et al"). The office action states that WIRTH is relied upon as in the §102 rejection above, and further admits that WIRTH fails to teach the foamed polystyrene trays of the claimed packages, but goes on to state that GUSAVAGE et al shows sealant/barrier/bonding layers bound to foamed polystyrene trays in packages, and that styrene/butadiene copolymer layers are sealable to polystyrene foams, and states that both WIRTH and GUSAVAGE et al are analogous because they both deal with multilayer materials having barrier properties. The office action goes on to conclude that it would have been obvious to one of ordinary skill in the art at

the time of the invention to cover the trays of GUSAVAGE et al with the materials of WIRTH in order to package goods so that gases cannot penetrate the packaging, and that it is deemed to be desirable to make packaging having barrier properties.

In response, Applicants contend that as amended above, Claims 5-20 are patentable over WIRTH in view of GUSAVAGE et al. As an initial matter, it appears that the office action errs in including Claim 5 in this rejection. More particularly, in the §103 rejection, the office action states that WIRTH fails to teach the foamed polystyrene trays of the claimed packages. While a substrate is recited in Claim 6, and foamed polystyrene is recited in each of Claims 7, 8, 10-14, and 16-20, neither a substrate nor foamed polystyrene is recited in Claim 5. Moreover, Claim 5 was also rejected as anticipated by WIRTH. Thus, the comments in section 6 of the office action do not correspond with Claim 5. Moreover, it seems to be inconsistent to reject Claim 5 as both anticipated by WIRTH and also as obvious over WIRTH in view of GUSAVAGE et al. As a result, Applicants presume that the §103 rejection of Claim 5 is erroneous. If this presumption is incorrect, Applicants contend that Claim 5 is patentable over WIRTH in view of GUSAVAGE et al for the same reasons Claims 6-8, 10-14, and 16-20 are patentable over WIRTH in view of GUSAVAGE et al, i.e., for all of the reasons set forth below.

As pointed out above, the specification of WIRTH teaches a multilayer structure having a thickness of from 140-4500 microns, and the various examples in WIRTH teach a thickness of from 900-1300 microns. The 140-4500 micron range of the specification of WIRTH equates to from 5.5 mils to 177 mils, and the 900-1300 microns of the examples in WIRTH equates to from 35.4 mils to 51.2 mils. Both of these ranges are significantly greater than Applicants recited thickness of from 10 to 100 microns, which equates to from about 0.39 to 3.9 mils.

Moreover, the thickness of the multilayer structure in WIRTH is still further from the thickness of the multilayer barrier film disclosed in GUSAVAGE et al. That is, the examples in GUSAVAGE et al disclose various multilayer films (designed to be bonded to a polystyrene foam sheet) having a total thickness of 1 mil, 2.15 mils, and 3 mils. Thus, the thickness of the multilayer structure in WIRTH is also significantly greater than the thickness of the multilayer film disclosed in GUSAVAGE et al. Moreover, WIRTH is directed to “the fabrication of packing materials or vessels (e.g., drinking glasses).” See WIRTH at Column 1 lines 10-12. The multilayer material of WIRTH appears to be designed for injection molding (e.g., “glasses”) or for a rigid thermoformed packaging structure, rather than as a flexible film such as the tray liner of GUSAVAGE et al. The examples in WIRTH are all more than an order of magnitude greater than the thickness of the thickest tray liner film in the examples of GUSAVAGE et al. Because WIRTH must be considered in its entirety, the more than an order of magnitude difference in thickness between the examples of WIRTH and the examples of GUSAVAGE et al would have motivated against the substitution of the structure of WIRTH for the flexible multilayer film tray liner of GUSAVAGE et al. This argument applies with even stronger force to new Claims 21 and 22 which recite thickness ranges of 15-80 microns (0.6 to 3.1 mils) and 20 to 60 microns (0.8 to 2.4 mils), respectively.

In addition, it should be noted that the multilayer tray liner film disclosed in GUSAVAGE et al provides both a bonding layer and an oxygen barrier layer. The office action states that the motivation to cover the trays of GUSAVAGE et al with the materials of WIRTH is that the materials of WIRTH have barrier properties, and the office action goes on to state that

it is deemed to be desirable to provide barrier properties to packaging in order to improve storage stability of packaged goods.

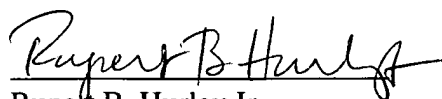
In response, Applicants contend that one of ordinary skill in the art would not have been motivated to substitute the multilayer structure of WIRTH for the tray liner film of GUSAVAGE et al, because the tray liner film of GUSAVAGE et al already has a barrier layer. See the EVOH layer in each of Examples 1-3, 5-11, 23-27, and 42-55 of GUSAVAGE et al. The EVOH layer in the multilayer tray liner film of GUSAVAGE et al serves to increase product shelf life by blocking atmospheric oxygen from the oxygen-sensitive food product to be placed within the package. Moreover, one of ordinary skill in the art would not have been motivated to significantly increase the thickness of the tray liner film by substituting the relatively thick multilayer material of WIRTH for the significantly thinner tray liner film of GUSAVAGE et al. Such a substitution would have been wasteful of materials, and would not have achieved any significant increase in barrier properties, contrary to the implications of the statements in the office action.

In summary, the office action does not set forth a prima facie case of obviousness of any of Claims 5, 6-8, 10-14, and 16-20.

IV. Conclusion

Applicants respectfully request reconsideration of the patentability of Claims 1-19, with a view towards allowance.

Respectfully Submitted,

A handwritten signature in cursive script, reading "Rupert B. Hurley Jr.", written over a horizontal line.

Rupert B. Hurley Jr.

Reg. No. 29,313

Attorney for Applicants

(864) 433-3247

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